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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,918	08/25/2000	Peter K. Cheo	PC-12	7311

7590

02/24/2004

M P Williams
Patent Counsel
210 Main Street
Manchester, CT 06040

EXAMINER

NGUYEN, TUAN N

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/648,918

Applicant(s)

CHEO ET AL.

Examiner

Tuan N Nguyen

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. In respond to applicant's amendment filed 12/30/2003, claims 1, 2, 14 have been amended, claim 15 have been canceled. Amendment to the specification to Page 5, line 7 through page 6, line 2, and Page 8 line 1 through 22 have been accepted. Claims 1-14, and 16-21 are pending.

2. Applicant's arguments with respect to claims 1-14, and 16-21 have been considered but are moot in view of new ground of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or non-obviousness.
4. Claims 1-4, 6-14, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner (US 3554721).

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With respect to claims 1, 2, 4, 6, 7, 8, 14, 16, and 20 Gardner '721 shows in figures 1-5 a clad-pumped, double clad, fiber laser comprising one or more circular doped cores disposed within a pump cladding (Fig 3: 14, 16, 18, 20, 22), where each having an oblong cross section (Fig 3: 18); there a single core disposed at the center of said cladding and additional cores disposed outwardly of said center core and having equal distance (isometric) between the centers of adjacent cores (Fig 3: 14, 16), thereby causing radiation in said cores to phase lock and transfer laser power coherently into a linearly polarized beam. It has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before, or where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Karlson*, 136 USPQ 184. *In re Aller*, 105 USPQ 233.

With respect to claims 3, 9-13, 17-19 the claims further requires the center spacing of said cores is between 15 and 50microns, and a first ring of six cores surround the central core, and a second ring of twelve cores surrounding said first ring, where the plurality of cores and characteristic is refraction, gain, and cross sectional dimension. Gardner '721 shows in figures 2,3,5 the first ring and second ring surround the central core and at least twelve cores surround the first ring (Fig 3: 14, 16, 18, 20, 22). It has been held that mere duplication or rearrange the parts, where the general conditions of a claim are disclosed in the prior art, involves only routine skill in the art, in this case the spacing between the core and having six cores in the first core surround the central core, or characteristic of the core. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. *In re Aller*, 105 USPQ 233.

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5. Claims 5, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner (US 3554721) in view of Marcatilli (US 3712705), or Hicks Jr. (US 4681399).

With respect to claims 5, and 21 Gardner '721 disclosed the above; the claims further require the cross section of said pump cladding is rectangular. Marcatilli '705 (Fig 2:20) or Hicks '399 (Fig 2: 16) disclosed the use of rectangular shape pump cladding. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Gardner '721 with the rectangular shape pump cladding as taught or suggested by Marcatilli '705 or Hicks '399, for shaping the laser beam light pattern.

Conclusion

6. Applicant's amendments necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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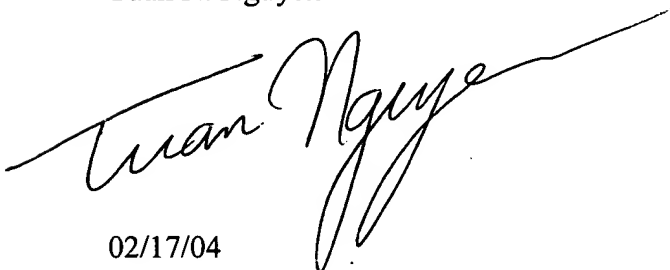
Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (571) 272-1941. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Tuan N. Nguyen



02/17/04



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